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ABSTRACT

To determine what effects employment will have on high school students' grade point averages and rate of school attendance, the author involved fifty-six students in an experiment. Twenty-eight students were employed part-time under the Youth Incentive Entitlement Project (YIEP). The twenty-eight students in the control group were eligible for employment under the YIEP in all areas except they resided outside the entitlement area. The students in the control group were unemployed during the testing period. Grade point average scores and rate of school attendance for the fifty-six students were gathered from permanent record files for semesters ending in January 1978, June 1978, and January 1979. Findings did not support the proposition that providing high school students with part-time employment during the school year and full-time employment during the summer will result in an increase in their grade point average scores and the number of days which they attend school. (LRA

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THE EFFECTS OF PART-TIME EMPLOYMENT ON HIGH SCHOOL STUDENTS GRADE POINT AVERAGES AND RATE OF SCHOOL

by

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ABSTRACT

To determine what effects employment will have on high school students' grade point averages and rate of school attendance, an independent variable, part-time employment, was used in a randomized control-group pretest-posttest true experimental design. Twenty-eight students from Wingate High School participating in the Youth Incentive Entitlement Project (Y.I.E.P., a Federally-funded employment program), were randomly selected for the treatment group. Students in the control group were ineligible to participate in the Y.I.E.P. program because they did not reside within the specified entitlement area. However, they were found eligible under the other three Y.I.E.P. eligibility criteria: Age (16 to 19 years old), income (poverty level), and school enrollment. In all, 56 subjects were involved in the experiment. Although GPA scores and rate of attendance means for the treatment group steadily increased while the control group's mean steadily decreased over the 12-month tesing period, the results of two one-way analysis of covariance resulted in non significant F-ratios for both criterion variables.

The high school drop-out rate among disadvantaged minority students has remained high during the last decade. Economics being a prime factor in this phenomenon, a rise in the employment statistics of disadvantaged youth for this same same ten-year period would seem likely. Interestingly, statistics indicate that the unemployment rate of black teen-agers in 1978 was 36.3. percent. This is an increase of 9.3 percent since 1968. In effect, disadvantaged teen-agers were dropping out of school at an increasing rate while employment opportunities were decreasing.

If employment is a strong incentive for dropping out of school, what effects would employment have on in-school youth's rate of attendance and GPA scores?

A study (1973) on the effects of part-time employment on ninth graders' rate of school attendance in Paducah, Kentucky, resulted in a 16 percent annual increase in attendance. Additionally, a significant difference was found between employed and unemployed ninth graders with respect to "...self concept as measured by the total image scale of the How I See Myself test..." [1] The study points out that the opportunity

1. Joe Dallas, "Unmotivated Students Get Work Experience," NASSP Bulletin 59, (December 1975): 106

of part-time employment, twenty hours a week, is an excellent method of working with potential drop-outs. Although an increase in the rate of school attendance was found, it was was not significant.

Employment does play an important role in altering self image of youth (Dallas, 75). Further, early employment experiences lead to favorable subsequent experiences and avoid the Hangover Effect (Adams, 78). It follows that education coupled with part-time employment has a significant positive effect upon the employment and earnings of youth in the future.

Early employment experience not only positively affects subsequent employment and earning, but it also affects economic mobility, social deviance and occupational choice (Levin, 1971). The evidence gathered from this study supports the causal relationship between educational attainment and post high school opportunity and post high school performance.

Most studies related to this topic attempt to draw causal relationships between part-time employment and academic achievement as measured by increases in grade point averages. Hammond, in two studies,

(1966, 1970), utilized high school seniors from middle-income white families in Lyndenhurst and Mentor, Ohio respectively. His first study indicated that part-time employment was not detrimental to scholastic achievement, but the level of achievement was significantly lower among employed students. His second study failed to show any evidence that grades varied significantly with employment status.

It may be that the variable of part-time employment alone is not sufficient to significantly affect scholastic achievement, self concept and rate of school attendance. Possibly, a causal relationship exists between the number of hours worked and the dependent variables. Ostrowsky's study (1974) found no clearcut correlation between students' GPA's and the number of hours worked. However, students working 31 to 40 hours a week had higher GPA's than students working more than 40 hours a week and unemployed students.

In a similar study, Parsons found that students working less than 26 hours a week had higher GPA's than unemployed students, whereas students working 27 to 39 hours had lower GPA's than unemployed students. This significant difference was achieved among first-year students at Forsyth Technical Institute only.

The study presented here was designed to test the emirical validity of the assumption that providing high school students with part-time employment during the school year and full-time employment during the summer increases the GPA scores and frequency of school attendance of those students.

METHOD

Participation in the Youth Incentive Entitlement Project is guaranteed to all who meet the four basic eligibility criteria of the program: Age (16 to 19 years of age), school enrollment, residence in entitlement area, and income at poverty level. Of the 347 students participating in the program, 156 attend Wingate High School. Through a random selection process, 28 Y.I.E.P. participants who attend Wingate High School were selected to represent the treatment group in this pretest-posttest control group true experimental design. The treatment was on-going participation in the Y.I.E.P. program from April 1978 to February 1979. Participants received part-time employment, ten hours a week, during the school year and full time, 35 hours a week, during the summer.

The control group was made up of 28 randomly selected Wingate High School students from a total group of 99. These 99 students were found ineligible for participation in the Y.I.E.P. program because they resided outside the entitlement area. They were, however, eligible under the other three eligibility criteria, age, school enrollment and poverty-level income. Further, the 28 subjects in the control group were unemployed during the testing period.

The total number of subjects in the experiment was 56. The ratio of boys to girls was 1:1, 19 boys and 19 girls per group. Each group had an equal number of 10th, 11th, and 12th graders, respectively, 4, 10 and 14. All students were between sixteen to nineteen years of age.

A pretest-posttest control group design was utilized for its ability to control for most of the threats to internal validity. The random selection process minimized the threat of selection biases. History and maturation also were controlled in that both groups would be equally affected by them. Testing in this experiment was not considered to be a possible rival hypothesis since GPA scores not single exam grades were a dependent variable. Further, both groups would be equally affected by the grading reliability of teachers' perception of ability. Randomization also minimized the phenomena of statistical regression. Mortality was not a source of threat to internal validity as data for the experiment was gathered ex post facto.

Two separate one-way analysis of covariance were used to test the following null hypotheses:

Hypothesis 1: There is no difference between the adjusted means of Y.I.E.P. students' GPA scores and non-Y.I.E.P. participants' GPA scores.

Hypothesis 2: There is no difference between the adjusted means of Y.I.E.P. students' rate of school attendance and non-Y.I.E.P. participants' rate of school attendance.

The .05 level of significance was used to evaluate the relevant F-ratios.

RESULTS

Data including GPA scores and rate of school attendance for semesters ending January 31, 1978 (covariate variable), and January 31, 1979 (criterion variable) for the 56 subjects were gathered from permanent record files at Wingate High School. In addition, GPA scores and rate of school attendance were gathered

for the 56 subjects for semester ending June 27, 1978. This was done to allow the experimenter to graphically depict an increase or decrease in GPA scores and rate of school attendance for the two groups should the null hypotheses be accepted in the analysis of covariance.

The results of two one-way analysis of covariance are presented in Table 1 and 2.

TABLE 1. SUMMARY TABLE FOR A ONE-WAY ANALYSIS OF COVARIANCE FOR GPA SCORES.

SOURCE OF VARIATION	RESIDUALS df	SS	MS	F
BETWEEN GROUPS	1	267.850	267.850	3.51
WITHIN GROUPS	53	4042.07	76.26	
TOTAL	54	4309.92		

TABLE 2. SUMMARY TABLE FOR A ONE-WAY ANALYSIS OF COVARIANCE FOR ATTENDANCE.

SOURCE OF VARIATION	RESIDUALS df	SS	MS	F
BETWEEN GROUPS	1	52.43	52.43	2.23
WITHIN GROUPS	53	6136.25	116.77	
TOTAL	54	6188.68		

Neither analysis was statistically significant. (GPA scores, $F=3.51$, $df=1/53$, $p>.10$; rate of school attendance $F=2.23$, $df=1/53$, $p>.10$).

Since the F ratios were not statistically significant in either analysis of covariance, the null hypotheses that no differences exist between the adjusted means of GPA scores and rate of school attendance for both the Y.I.E.P. treatment group and the non-Y.I.E.P. control group are accepted.

Although no statistically significant differences were found, the Y.I.E.P. treatment group realized a slight increase in both GPA score means and rate of attendance means during the period of January 1978 to January 1979. The non-Y.I.E.P. control group, however, decreased its overall mean for both criterion variables. Figure 1 and 2 represent time-series designs which depict this increase-decrease relationship.

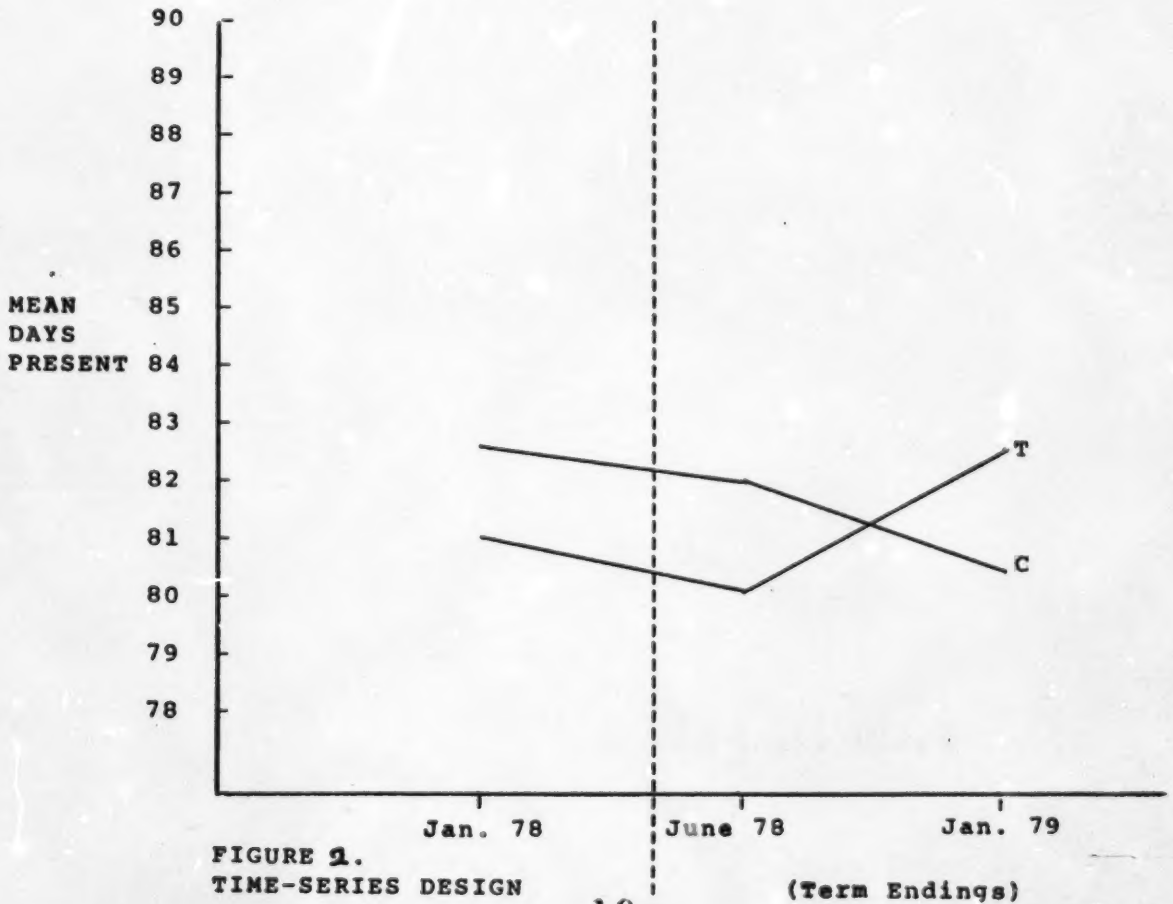

FIGURE 1.
TIME-SERIES DESIGN

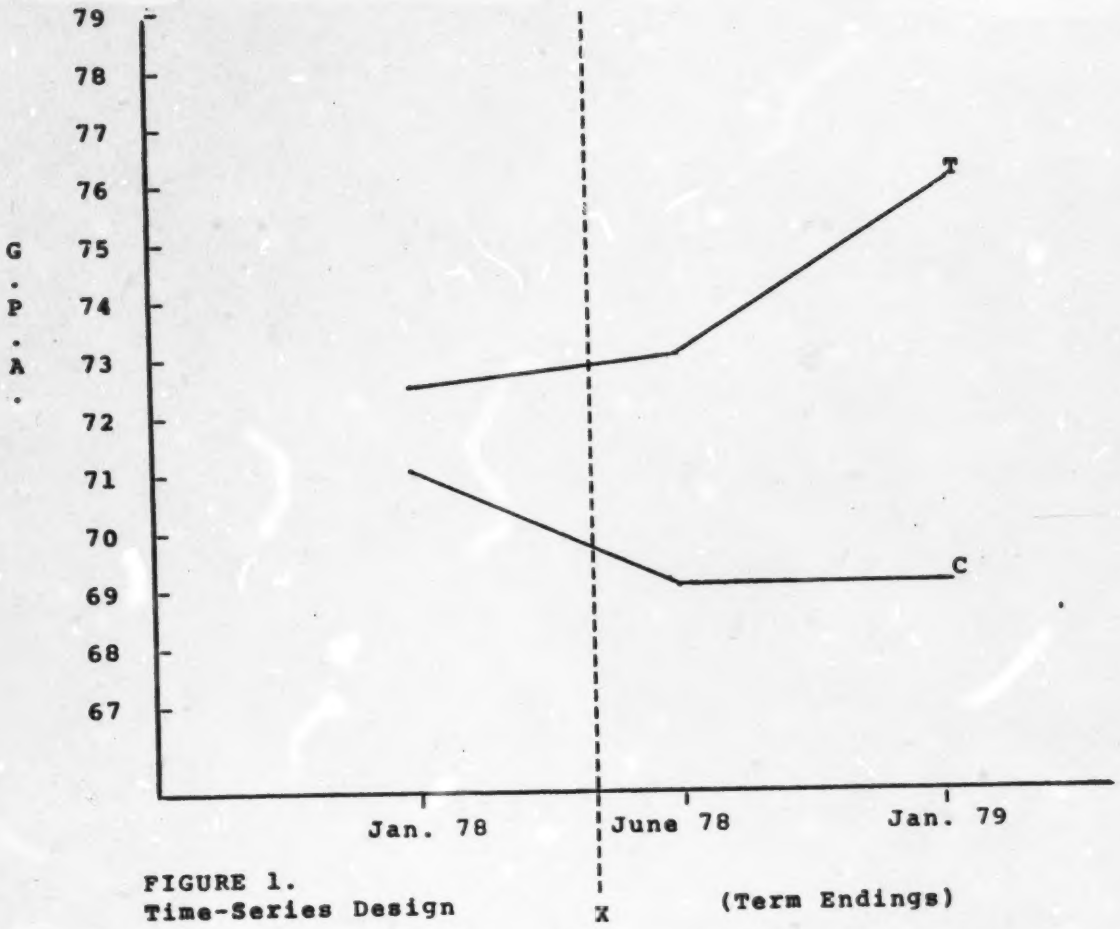

FIGURE 1.
Time-Series Design

DISCUSSION

The results clearly do not support the proposition that providing high school students with part-time employment during the school year and full time employment during the summer will result in an increase in their GPA scores and the number of days which they attend school.

The time-series designs, figures 1 and 2, explicitly point out that the means for GPA scores and rate of school attendance for the treatment group increased by +3.21 and +0.26 respectively, while the means for the control group decreased by -1.08 and -3.11 respectively. Perhaps if the time interval between the covariate

and the criterion variables was expanded by an extra semester, January 1978 to June 1979, and the means for the treatment group continued to increase at the same rate while the control group's means continued to decrease, then the probability of acquiring a statistically significant difference between the groups' adjusted means would be strengthened.

Clearly, the element of time is responsible for accepting the null hypotheses at this stage. Promoting attitudinal changes in high school students with respect to grades and school attendance cannot be achieved by the application of a 1 -month treatment.

Clearly, attitudes which high school students took nine or more years to formulate cannot be radically transformed in so short a time span.

The number of allowable hours of work per week may also have been responsible for accepting the null hypotheses. Could a statistically significant result have been achieved had the number of working hours been increased or decreased (Ostrowsky, 1975)?

A perusal of previous research has failed to find any studies relating to the effects of part-time employment on the combined dependent variables, GPA scores, rate of school attendance and students' self concept. A study of this nature seems a worthy venture.

Other studies may assess whether employment, on a part-time basis, will be enough of an incentive for high school drop-outs to return to and complete school.

Another study may ascertain the longer-term impacts of part-time employment of high school students following their departure from school.

SOURCES CONSULTED

1. Adams, Arvil V. "The Lingering Crisis of Youth Unemployment." Resources in Education ED 157 985 (Abstract)

2. Dallas, Joe. "Unmotivated Students get Work Experience." NASSP Bulletin 59 (December 1975): 106-08.

3. Hammond, W.A. "Scholastic Achievement and Part-time Employment." Clearing House, April 1970, pp. 465-67.

4. _____. Part-Time Employment; A positive View." NASSP Bulletin 55 (October 1971): 63-70

5. Hammers, E. "Caring for Drop Outs." School & Community 64 (March 1978): 12-13.

6. Levin, Henry et al. "School Achievement and Post High School Success: A Review." Review of Educational Research 41 (February 1971): 1-11.

7. New York Times, 11 March 1979.

8. Ostrowsky, Micheal V. "The Effects of Students' Ouside Employment on their GPA's." Resources in Education (April-June 1975): 135 (Abstract)

9. Parsons, Ralph. "The Effects of Employment on th Grades of Students in Associate Degree Programs at rsyth Technical Institute." Resources in Educatio (April 1977) Semi Annual Index ED 140 911

10. Peterson, H.M. "Breakthrough for Disadvantaged Youth." American Vocational Journal 46 (October 1971): 67-70

11. Wallis, Harry V. et al. Statistics, A New Approach. Illonois: The Free Press, 1956.

12. Wert, James E; Neidt, Charles O.; and Ahman, Stanley J. Statistical Methods in Educational and Psychological Research. New York: Appleton-Century-Crofts Inc. 1954.

13. Department of Commerce, Bureau of the Census. Statistical Abstract of the United States, 1978.